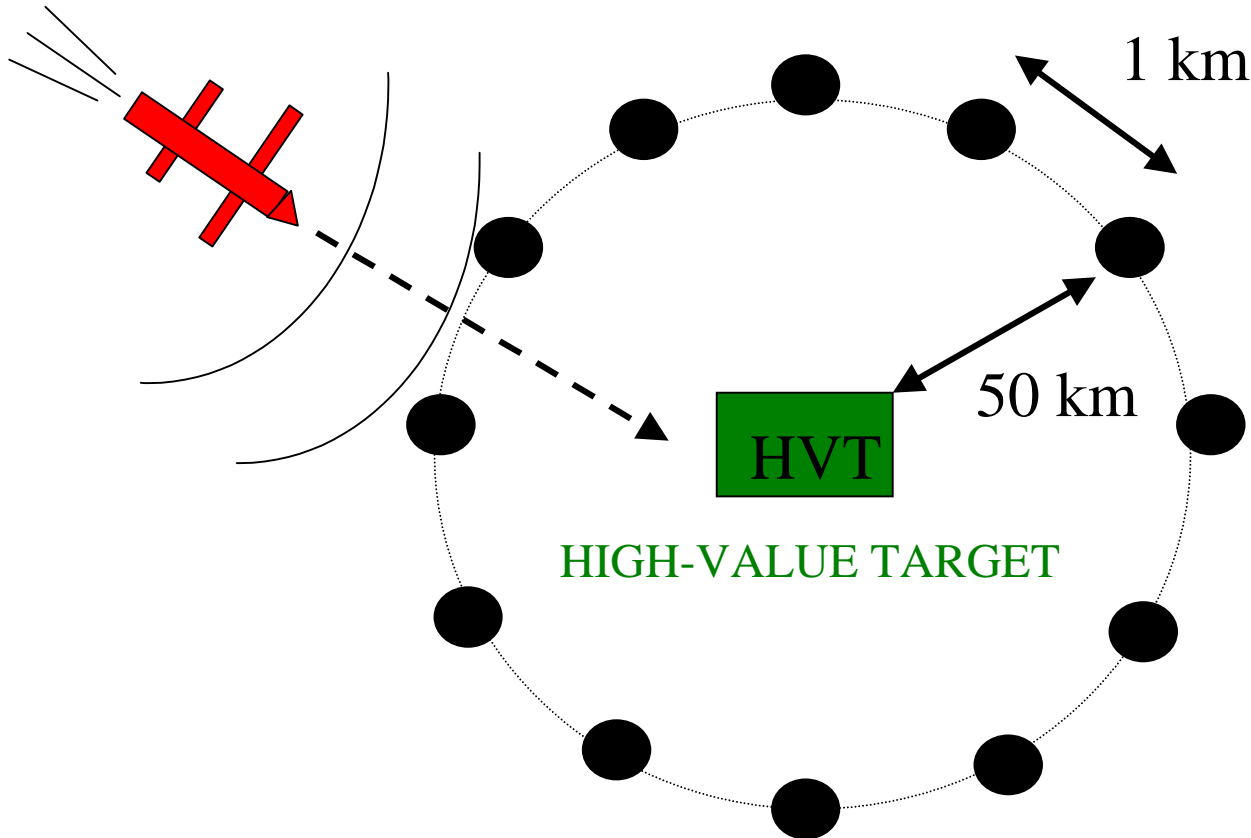




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ACOUSTIC CRUISE MISSILE DETECTION: SYSTEM CONCEPT



“ACOUSTIC FENCE”
“ACOUSTIC SENTRY”
“ACOUSTIC PICKET”



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TECHNICAL ISSUES



FY99:

- **SIGNAL TO NOISE RATIO
MUST BE SOLID**

FY00:

- **AUTOMATED UNALERTED
DETECTION MUST BE RELIABLE**



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ON-GOING ACOUSTIC ANALYSIS



- RAW RECEIVED
SIGNAL LEVEL (RL)



- TRANSMISSION LOSS (TL)
- SOURCE LEVEL (SL)

$$RL = SL - TL \quad SL = RL + TL$$

- RAW NOISE LEVEL
- SIGNAL TO NOISE RATIO (SNR)





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DAY/NIGHT PROPAGATION

